CAPSULE SUMMARY
OF ACTIVE TASKS

October 1, 2005

UNITED STATES MEMBER STATE SUPPORT PROGRAM TO IAEA SAFEGUARDS

DEPARTMENT OF ENERGY
DEPARTMENT OF STATE
NUCLEAR REGULATORY COMMISSION
DEPARTMENT OF DEFENSE

INTERNATIONAL SAFEGUARDS PROJECT OFFICE
BROOKHAVEN NATIONAL LABORATORY
UPTON, LONG ISLAND, NEW YORK 11973

Currently Active Tasks

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
A.116		**Field Support Instruments and Techniques [USA A 931 / R. Carchon]**				
			ORNL	$155,336.00	$155,337.00	The remaining funding for this task was redirected to Task A.202. ORNL's scope of work is complete.
	A.116.83		LANL	$248,000.00	$237,650.00	Cascade Header Enrichment Monitor - LANL hopes to complete the user's manual by the end of this calendar year.
A.200		**Environmental Sampling and Analysis Support [USA B 817 / V. Henry]**				
			ISPO	$162,700.00	$162,700.00	The IAEA submitted a request on June 11, 2004, to have US Air Force Technical Applications Center (AFTAC) increase the number of environmental samples analyzed each year, above the present contract limit of three hundred per year. The number of environmental samples collected by the IAEA has tripled during the past years. All of the IAEA Network of Analytical Laboratories (NWAL) are being utilized to their full extent and many of them are being pushed over their limits of capacity and/or turnaround time. At the September 1, 2005 SSTS meeting, DOD agreed to increase the AFTAC throughput, from three hundred samples to four hundred and fifty samples per year, by the end of 2005. DOD's letter to the IAEA includes a request for the IAEA to amend the existing contract to reflect this change and to modify the contract to allow for future sample quantity and funding changes. This task has been closed out by ISPO.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
A.202		**Separation of Plutonium Isotopes for the Production of High Purity Spike Reference Materials**				
		[USA A 909 / D. Donohue]				
			LANL	$17,100.00	$17,100.00	There has been no activity reported for this quarter.
			NBL	$77,225.00	$60,115.00	Steven Goldberg continued to work with ORNL on the shipment of the FP-33 material to the IAEA. Dr. Goldberg and the Steering Committee are trying to solve some of the issues that involve the acquisition of containers (PAT-2) needed for the shipment to the IAEA. They will determine how the IAEA will ship the material to VNIIEF directly, after receipt. Dr. Goldberg has worked on the revision of the contract and the development of the work statements between IAEA and VNIIEF.
			ORNL	$127,284.00	$77,187.00	NBL provided an estimate of the funding required to continue managing US laboratory effort in providing FP-33 feed material to the IAEA for separation in Russia. The SSTS approved funding at its September 1, 2005, meeting.
A.218		**Controlled Potential Coulometry of 1 mg Pu with SRL Coulometer**				
		[USA A 1049 / S. Balsley]				
			SRNL	$334,023.00	$266,930.00	SRNL shipped fifty cells for coulometry measurements to the Safeguards Analytical Laboratory (SAL). These cells will allow SAL to reduce the uncertainty introduced during the sample preparation phase, by eliminating the preparation of small batches of aliquots and their associated individual evaporation correction. With the SRNL provided vacuum electrical feed through, SAL can replace the cell cable without performing open glove box maintenance.
A.223		**Technical Support to the Clean Laboratory**				
		[USA A 1081 / D. Donohue]				
	A.223.09		LANL	$107,000.00	$28,000.00	Clean Laboratory Training at LANL and SAL - This subtask provides training for SAL personnel in the techniques used to process IAEA NWAL environmental samples for bulk analyses in cleanroom facilities. LANL prepared for Dr. Taeko Shinonaga's visit from September 9 to 13, 2005. Dr. Shinonaga observed the procedures used at LANL to process the IAEA's environmental samples. Dr. Steiner and Dr. Efurd (LANL) will travel to SAL to answer questions and to help address issues and concerns raised by Dr. Shinonaga's visit.

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A.233		**NDA Verification Techniques for BRN Enrichment Plant**				
		[USA A 1157 / R. Lafolie]				
			ORNL	$561,870.00	$561,870.00	This task is on stand by.
A.241		**Development of Integrated Review Software for UMS**				
		[USA A 1238 / C. Liguori]				
			LANL	$402,000.00	$340,268.00	LANL Integrated Review Software - The generic definitions and interfaces for analysis COM libraries were refined. The analysis COM interface definition specification and the generic module definition interface specification (includes manager component interface specification updates) were updated and delivered. The concept of component library manager hierarchy was designed and developed. The facility manager component library to support the new DVR camera configuration methodology was updated. The generic capability to convert facility manager databases to a new format for use in the UNARM baseline installation package was developed.
	A.241.01		LANL	$168,870.00	$46,559.00	Adoption of Operator Provided Declarations (OPD) Data into Generic Software - The IAEA is reviewing the requirements document. Work should not proceed until this document has been accepted. LANL has negotiated with the IAEA to extend the deadline of this project from the original date of September 30, 2005, until the end of February 2006. This new deadline allows LANL to perform work related to the Rokkasho facility and allows the IAEA to do document reviews.
	A.241.02		LANL	$123,000.00	$6,300.00	Prototype Analysis Module - The "Integrated Review Software Radiation Review Interface Specification" (LA-UR-05-4276) has been sent to the IAEA. The document detailing the interfaces for the prototype analysis COM (CoEvent Analysis) was updated, based on design discussions, to maintain compatibility with the requirements of the Rokkasho project.
	A.241.03		LANL	$27,000.00	$3,800.00	Implementation of VIFM Analysis - There has been no activity during this quarter. LANL is waiting for the IAEA to complete the VXI Integrated Fuel Monitor (VIFM) Analysis COM. This COM will be integrated into Radiation Review, when LANL receives it from the IAEA.
	A.241.04		LANL	$74,000.00	$3,700.00	IRS Upper Layer Redesign and Standardization - There has been no activity during this quarter due to work on higher priority tasks, as directed by the IAEA. Activity on this task is expected to accelerate in the first quarter of 2006. Software development of the redesigned upper layer is scheduled for completion in June 2006.

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A.242		**Evaluation of Miniature GRAND Electronic Unit [USA A 1239 / Y. Lee]**				
	A.242.02		LANL	$220,000.00	$206,889.00	MiniGRAND Commercialization - Mini Gamma Ray and Neutron Detector (MiniGRAND) testing by the IAEA is in progress. The IAEA has the most comprehensive automated MiniGRAND test apparatus and the largest assembly of commercialized MiniGRANDs. The IAEA observed a Digital Camera Module (DCM) humidity-dependent problem during MiniGRAND testing. This problem would not be observed necessarily at LANL or Aquila-Canberra, due to the dry local climates. Individual component tolerances should not give rise to the observed DCM behavior. Further review is required. The IAEA observed Real Time Clock (RTC) drift during testing. The RTC has been observed to drift beyond the stated specifications in some MiniGRANDs. While the observed drift is reproducible, the cause is unknown and needs to be quantified.
	A.242.06		LANL	$630,000.00	$608,830.00	MiniGRAND Microprocessor Board (MPB) Upgrade - LANL has stated that this project should be closed. ISPO needs to obtain concurrence from the IAEA, prior to project closeout.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
A.247		**Support for the Development of the SG System at Rokkasho Reprocessing Plant [USA A 1351 / S. Johnson]**				
	A.247.05		LANL	$814,000.00	$723,765.00	RRP Integration of Inspection Equipment - LANL is awaiting instructions from the IAEA, prior to the shipment of the Vitrified Canister Assay System (VCAS) detector. Ion chambers have been received from the IAEA for incorporation in the external gamma monitors for the VCAS area. The engineering design of the external gamma monitors has been completed, based on these ion chambers. Drawings of the external gamma monitors have been sent to the IAEA for approval, prior to manufacture. The inspection and technical support divisions of the IAEA discussed the Temporary Canister Verification System (TCVS) data acquisition system, during their visit to LANL in July 2005. The IAEA will send its proposed layout of the cabinet, so that the appropriate cable lengths can be prepared. The IAEA will supply LANL with the long cable runs, which will be made using seven core coaxial cable.
	A.247.07		LANL	$54,000.00	$52,073.00	RRP Monitoring of Shielded MOX Canisters - LANL has stated that this project should be closed. ISPO has obtained concurrence from the IAEA. This subtask will be closed out by ISPO.
	A.247.09		LANL	$176,000.00	$154,407.00	RRP Project Coordination - This project provides LANL with funding for regular reporting to the IAEA, concerning all LANL Rokkasho Reprocessing Plant (RRP) work. This subtask is in progress.
	A.247.13		IAEA	$752,709.00	$857,702.00	RRP Integrated Inspector Information System (I3S) - All deliverables for this task were accepted by the IAEA during the prior quarter. This subtask is closed.
	A.247.16		LANL	$44,000.00	$42,600.00	IRS Software Assessment for RRP NDA Applications - LANL completed the review of the stand-alone IRS software requirements and discussed the information with the IAEA. LANL prepared project plans for LANL support work to the NDAR system and the standardization efforts, which were submitted to ISPO and to the IAEA. The SSTS approved the FY05 portion of this work, pending IAEA approval. LANL held a conference call with the IAEA to discuss their comments on the proposals. LANL has submitted suggestions to the IAEA to address their comments. ISPO has obtained concurrence from the IAEA. This subtask will be closed out by ISPO.

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	A.247.17	BMI	$46,105.00	$28,519.00	Netscreen Security Audit - This subtask involves a security audit of the IAEA's VPN/Firewall Appliance by Battelle Memorial Institute (BMI). The IAEA has received and approved BMI's final report. ISPO has requested a trip report from BMI and the return of purchased items, prior to project closeout. The contract with BMI has been extended to the end of October 2005.
	A.247.18	LANL	$191,000.00	$56,783.00	Stand-Alone Integrated Review Software (IRS) and Training - This subtask concerns the provision of an IRS system, based on generic LANL software but tailored for use at RRP. This system is intended to be used as an interim and backup review system to the IAEA RRP Integrated Inspector Information System (I3S). Work has begun on the modification of the individual review tools Radiation Review (RAD) and Isotopic Review (ISO). Mini Gamma Ray and Neutron Detector (MiniGRAND) data can be exported to IAEA Neutron Coincidence Counting (INCC). The three-detector version of ISO for the Improved Plutonium Canister Assay System (IPCAS) is being tested. Preparations are being made for the review training course for IAEA inspectors, which is to be held at RRP from October 3 to 5, 2005.
	A.247.19	LANL	$511,500.00	$140,287.00	UNARM Tool COM Support for NDAR - This project involves the conversion of existing LANL software to component object modules (COMs) to support the Non Destructive Assay Review (NDAR) system at RRP. LANL and the IAEA have clarified how the COM technology will fit into NDAR. This project is based on a final statement of work (SOW), upon which the IAEA and LANL have agreed. LANL has developed a project schedule which is being reviewed by the IAEA. This project is based on an accelerated schedule with deliverables due to the IAEA by June 30, 2006. Schedule items which were completed are IAEA Task 1 (Update ISO/INCC/RAD Interface Specifications), IAEA Task 3 (Import Manager Interface Specification), IAEA Task 5 (Deliver Process Sequences), IAEA Task 9 (State-of-Health/Logging COM Questions), IAEA Task 11 (New COM Brief Descriptions), and IAEA Task 12 (Distributed COM Testing).
A.248	**Gate Monitor at LWRs Loaded with MOX Assemblies [JNT USA A 1356 / T. Pochet]**	LANL	$330,000.00	$279,630.00	The IAEA has requested funding for LANL to complete the gate monitor prototype and documentation. LANL has submitted a proposal to ISPO for SSTS consideration.

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A.250		**Enhanced ANM Capability for HKED Software at SAL [USA A 1369 / N. Doubek]**				
	A.250.01		LANL	$165,000.00	$166,055.00	The IAEA has requested a statement from Mike Collins (LANL) to confirm LANL's commitment to the HKED method. Dr. Collins is submitting this commitment statement to ISPO and the IAEA. The IAEA is validating the HKED software. IAEA Project Manager Steven Balsley will inform ISPO when the code validation is complete.
A.251		**Expert - Instrumentation Systems [USA E 1372 / M. Aparo]**				
			CFE	$550,000.00	$411,378.00	The expert James Halbig has been working on LANL-based Unattended Monitoring Systems (UMS). Some of Dr. Halbig's tasks are the integration of the Auxiliary Communications Device into existing IAEA UMS hardware, Chernobyl Unit 4 (Shelter) UMS implementation, and participation in the design review of the Next Generation Surveillance System, specifically integration with UMS hardware.

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A.252		**Field Support and Implementation [USA A 931 / R. Carchon]**				
	A.252.08		BNL/NCT	$59,311.55	$58,933.00	HEU Down Blending at Ulba - James Lemley completed an informal report elaborating on both written and oral comments provided during his travel to Vienna and Kazakhstan from June 13 to 30, 2005, on questions raised by IAEA staff. The informal report was sent by e-mail to Jorge Vallejo-Luna, the IAEA point-of-contact (POC) for the HEU down blending project at the Ulba facility in Kazakhstan, with copies to the ISPO POC and the ISPO Liaison Officer in Vienna. Dr. Lemley completed a formal DOE trip report.
	A.252.09		ORNL	$7,821.00	$7,821.00	IQ3 Detector - The remaining funding for this task was redirected to Task A.202. This subtask is complete.
	A.252.10		BNL/NCT	$68,744.00	$68,612.00	Neutron Camera - There has been no activity reported for this quarter. The final report is being prepared in conjunction with LLNL, under their portion of this subtask.
	A.252.10		INL	$24,008.00	$24,570.00	Gamma and Neutron Camera Field Test - This task is complete.
	A.252.10		LLNL	$81,000.00	$75,068.00	Gamma Camera - The report is finished and will be submitted to ISPO, when LLNL internal Review and Release has been completed.
	A.252.12		KCP	$568,625.00	$0.00	T-1 Seals - During the IAEA visit to KAMS in August they confirmed that the 200 T-1 seals were received. This task is closed.
	A.252.14		LANL	$146,000.00	$106,679.00	FDMS and RR Codes - Joe Longo and Shirley Klosterbuer worked together on shared integration tasks for the Baseline 2 release. The priority of the Baseline 2 software release (and implicitly FDMS) was lowered to accommodate I3S/NDAR work for the IAEA. Joe Longo met with IAEA inspector Fabien Caillou, who was attending an NDA course at LANL. LANL identified useful and realistic improvements to FDMS, based on his recent field experience with FDMS. The identified approach will improve the performance of inspectors under the strenuous conditions encountered at specific facilities, by reducing attended monitoring inspection time and by streamlining some of the repetitive actions in FDMS.
	A.252.15		LANL	$48,000.00	$46,500.00	Upgrade VWCC at Tokai - ISPO received copies of LANL's trip report and draft procedure for VWCC Collect PC Replacement. This task is complete.

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	A.252.16		LANL	$41,000.00	$34,500.00	Recalibration of the Hulls Measurement and Monitoring System (HMMS) - ISPO forwarded the final report to the IAEA for comments.
	A.252.18		LANL	$28,000.00	$28,000.00	Unattended Uranium Enrichment Monitor - The LANL PI for this project retired. Any work associated with this request, performed prior to the PI's retirement, was funded out of and performed under Task A.116.83. The project is closed.
A.253		**Expert - Specifications of Data Collection and Evaluation Software for RRP (P4) [USA A 1398 / S. Johnson]**				
			CFE	$410,477.00	$369,112.00	The expert Joseph Damico is project manager for the development of the IAEA's Integrated Inspector Information System (I3S) for the Rokkasho Reprocessing Plant (RRP) in Japan.
A.256		**Evaluation Software for HKED Spectral Analysis for the Joint IAEA/JSGO On Site Analytical Laboratory at the Rokkasho Reprocessing Plant [USA A 1420 / G. Duhamel]**				
			LANL	$160,000.00	$160,147.00	The IAEA Project Manager Georges Duhamel has requested additional information from Mike Collins (LANL) before this task is closed out. The IAEA is waiting for LANL's formal report.
A.257		**Consultant - Chemical Separation Techniques for Environmental Samples [USA A 1432 / Y. Kuno]**				
			Clemson	$298,000.00	$203,199.00	This task has provided expertise to improve certain radiochemistry separation methods used in the analysis of radionuclides in safeguard samples at the IAEA Safeguard Analytical Laboratory (SAL). This work is being performed by James Navratil (Clemson University) and Amanda Padgett (Clemson University graduate student).
			IAEA	$71,300.00	$68,404.00	This funding is provided for travel expenses for Dr. James Navratil (Clemson University) and Amanda Padgett (Clemson University graduate student). The travel for this task is complete. ISPO is closing out the travel portion of this task.

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A.258		**Detection System for In Situ Measurements of Neutron Signatures from Spent Fuel Storage Containers**				
		[USA A 1434 / Y. Lee]				
			LANL	$180,000.00	$91,342.00	This task involves the design of a detector with the capability of in-situ reverification of the nuclear material inventory inside dry storage casks (both concrete and metal), in the event of the loss of continuity of knowledge and/or other reasons. A scope change was approved by the SSTS on September 1, 2005, since the originally proposed measurement method (thermal neutron counter) was determined to be impractical. Laboratory experiments using the new measurement method of choice (high energy neutron imaging) is ongoing. Assuming a positive outcome of the proof-of-principle tests, the IAEA plans to submit a request for additional funds for the construction and delivery of a field-usable detector system.
A.259		**Expert - Development of New Seals**				
		[USA E 1452 / M. Zendel]				
			CFE	$402,900.00	$282,596.00	The expert Hal Undem is overseeing the VOID-3 Seals Design Contract (SDC). Avery Dennison has completed the initial technical evaluation of the existing Agency adhesive seal. A report on this phase of the work was delivered. An Agency review was completed. Complementary work has begun by the LANL Vulnerability Assessment Team (VAT). The Metal Seal Project is progressing with the development of a conference report examining the potential for an Ultrasonically Interrogated Metal Seal (UIMS). Work on an RFID signature element is progressing under EU MSSP support. Plans have been made for specific in-house investigations of RFID devices in the metal seal. A conference call was conducted with INL related to USSP Task E.144, regarding an ultrasonic approach to reading the metal seal internal signature. Initial success in extracting images from the internal structure has been reported. The Agency is examining the images and will meet with INL. Dr. Undem wrote two advanced concepts requirements and provided them to the USSP for the purpose of suggesting research topics for either Small Business Innovative Research (SBIR) projects or Laboratory Directed Research and Development (LDRD) Projects. A laboratory bench for the purpose of VA capability development has been established in the Seals Lab, and has received an initial stock of fundamental tools, instruments, chemicals, and other equipment.

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A.262		**Coordinated Experts' Meeting on Noble Gas Monitoring and Sampling**				
		[JNT USA A 1494 / J. Whichello]				
			BNL	$25,000.00	$23,694.00	Robert Bari (BNL) attended the Noble Gas Monitoring and Sampling meeting in Vienna from September 12 to 16, 2005. Dr. Bari's involvement with this task has ended. ISPO is awaiting a final financial report and a trip report, prior to project closeout.
			PNNL	$71,000.00	$58,951.29	A technical meeting was held in Vienna from September 12 to 16, 2005, to address the use of noble gas monitoring, as a tool for detecting undeclared reprocessing activities or for other safeguards applications. Ned Wogman and Ted Bowyer (PNNL) developed a draft paper for this noble gas meeting. They presented it at the workshop and developed an outline for a final report on the use of noble gases for safeguards utilization. The IAEA has requested a task extension for Dr. Bowyer to produce a final report and present it to the IAEA. ISPO has requested a proposal for this task extension from PNNL.
A.263		**Traceability of DA Measurements - Provision of NBL Certified Reference Materials**				
		[USA A 1496 / S. Balsley]				
			NBL	$103,000.00	$32,625.00	New Brunswick Laboratory (NBL) has supplied the IAEA's Safeguards Analytical Laboratory (SAL) with sixty-nine certified reference material (CRM) units during FY05. NBL has been actively working on receiving and shipping the remaining fifteen units to SAL. These fifteen units are plutonium metal standards, currently located at LANL. LANL is temporarily unable to ship these fifteen units. NBL anticipates that this issue will be resolved during the first quarter of FY06. Peter Mason (NBL) is communicating with Steve Balsley (IAEA) on the acquisition of CRM 130 and CRM 66. CRM 130 is a Pu-244 spike used for mass spectrometry measurements. CRM 66 is a thorium oxide standard used for impurity measurements. NBL has begun the project planning phase for the CRM 116 HEU metal standard. The actual project work is anticipated to begin during the second quarter FY06. NBL is working with SAL on the details of the project plan for the recertification of CRM 137, which is an Fe/Pu standard.

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A.264		**Analytical Quality Control - Participation of SAL in NBL SME Programme** **[USA A 1497 / S. Balsley]**				
			NBL	$25,000.00	$700.00	Chino Srinivasan (NBL) continues to communicate with Steven Balsley (IAEA) on their possible participation in NBL's Measurement Evaluation Program. At the Measurement Evaluation Annual meeting held in July 2005, it was discussed that more information would be provided on the types of samples used in the program and their forms. Dr. Srinivasan is collaborating with Mr. Balsley on a draft list of sample types that could be used by the IAEA and their respective laboratories. NBL will work with Mr. Balsley to develop the sample types needed by the IAEA. A draft work statement is expected by the first quarter of FY06.
A.265		**Environmental Sampling Evaluation Support** **[USA A 1498 / W. Fuhr]**				
			ORNL	$209,000.00	$169,824.00	Environmental Sampling Evaluation Support - Diane Fischer completed the environmental sampling (ES) Safeguards Technical Report (STR) manual and submitted it to the IAEA for final review in August. She traveled to Vienna to provide evaluation support for three weeks in September. Tasks completed included ES evaluations, providing database training to a new intern, and writing a paper on ES detection capabilities. Ms. Fischer completed the final revisions to the ES STR and submitted the document to the IAEA for publication.
	A.265.01		ORNL	$32,000.00	$32,000.00	ORIGEN/SCALE Software and Training - Steve Bowman and Ian Gauld conducted SCALE5/ORIGEN training at the IAEA from September 14 to 16, 2005. Twelve class participants from two sections of the IAEA (TNS and PSA) and from the Comprehensive Test Ban Treaty Organization attended. The IAEA expressed an interest in continued training in SCALE and adapting the program to Safeguards needs. ISPO needs to obtain IAEA concurrence prior to project closeout.
B.080		**Training Workshop in Design Information Review for the Entire Life Cycle of Research Reactors** **[USA B 984 / P. Rodriguez]**				
			BNL/SAC	$305,000.00	$244,748.00	This task is on stand by.
			ORNL	$0.00	$0.00	This task is on stand by.
	B.080.01		ISPO	$76,062.00	$90,200.00	This task is on stand by.

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B.082		**Safeguards Training Course: Enrichment Technology**				
		[USA B 1001 / M. Hunt]				
			ORNL	$389,255.00	$389,255.00	
						A copy of the Safeguards Training course critique was provided to the IAEA. The approved scope of work is complete. This task will be placed on stand by, awaiting further IAEA requests for enrichment
B.084		**Revision of Introductory Course on Agency SG (ICAS)**				
		[USA B 1106 / P. Rodriguez]				
			BNL/ENT	$15,144.00	$15,144.00	
			Sonalysts	$644,000.00	$515,737.00	
						Michael Stein and Colin Carroll (Sonalysts) worked at the IAEA for two weeks in July 2005. They held a meeting, attended by Jaime Vidaurre-Henry (Section Head for Safeguards Training (SH-TTR)), Perpetua Rodriguez (ICAS Training Officer), and Beate Nagl (ICAS training clerk), to discuss the work plan and to identify Agency subject matter experts available for consultation. Mr. Stein and Mr. Carroll performed a detailed review of the existing ICAS curriculum, the associated content, and all learning objectives. Existing content was restructured and new content added by editing existing learning objectives or drafting new ones, as necessary. Learning objectives were entered into an Access database for further processing and to establish configuration control. Mr. Stein and Mr. Carroll met with instructors and content specialists to obtain input, recommendations, and technical source material. They finalized their analysis of the ICAS curriculum and produced a draft version of a revised course design, which was delivered to TTR for review and comment. The task is on stand by.
B.090		**Workshop on Quality Assurance Techniques**				
		[JNT USA B 1277 / D. Neal]				
			SAM	$150,000.00	$69,147.00	
	B.090.01		SAM	$84,000.00	$162,426.00	
						STAT-A-MATRIX (SAM) was awarded a second contract by the IAEA Department of Safeguards to conduct additional training sessions and workshops on quality management for 2005-2006. Michael Flynn and Charles Aubrey (SAM) conducted a two-day seminar on Quality Management Systems for Safeguards Managers on September 15 and 16, 2005. They conducted a five-day workshop on Quality Management Systems from September 19 to 23. SAM is updating the format of each presentation for both courses at the request of the IAEA. Two additional sessions are scheduled from November 7 to 11 and from November 14 to 15, 2005.

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B.091		**Training on Remote Monitoring and Unattended Monitoring**				
		[USA B 1337 / P. Hypes]				
	B.091.03		LANL	$138,500.00	$91,100.00	Radiation Review Software Training - The IAEA has requested that a revision of this course be presented in the second quarter of 2006. A list of suggestions for enhancing the course was provided by the IAEA. A proposal outlining how the second course will be taught and specifying how much funding will be required will be submitted to ISPO.
	B.091.03		Sonalysts	$118,500.00	$92,451.00	
B.093		**IAEA Participation in U.S. Sponsored Training Courses**				
		[USA B 0086 / P. Hypes]				
	B.093.05		LANL	$495,286.00	$488,600.00	Advanced Plutonium Verification Techniques (APVT) - The APVT course was held at LANL in June 2005. The only activities on this task during this quarter were the repair of damaged instrumentation, administrative work, and budget management.
	B.093.06		LANL	$865,748.00	$708,543.00	NDA Training for New IAEA Inspectors - The Non Destructive Assay (NDA) course for new IAEA inspectors was held at LANL from August 16 to 26, 2005. Fourteen inspectors attended the course.
	B.093.07		BNL	$12,000.00	$0.00	Expert Support to ICAS - ISPO approved this subtask and placed a contract with Dr. Gerald Bosler to assist the IAEA with the gamma portion of the NDA module of the 53rd session of ICAS.
	B.093.07		LANL	$74,000.00	$73,100.00	This task is on stand by.
	B.093.07		SRNL	$47,000.00	$45,065.00	This task is on stand by.
B.094		**Neutron Pulse Simulator for Training and Testing**				
		[USA B 1401 / A. Lebrun]				
			LANL	$529,300.00	$427,701.00	The IAEA has requested that LANL be funded to develop an additional option in the existing software for the neutron pulse simulator, which would enhance training utilities by allowing students to simulate different neutron detector heads and different types and amounts of nuclear material. LANL has submitted a proposal to the ISPO.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
B.096		**Workshop on Additional Protocol Activities [USA B 1415 / M. Hunt]**				
			BNL/NCT	$320,679.00	$51,106.00	
						The SSTS approved additional funding for this task at its September 1, 2005, meeting. The draft project plan calls for the Additional Protocol Workshop to be conducted at BNL in May 2006. Brian Boyer (BNL) held a meeting for BNL to discuss roles for the various staff. He met with John Gilbert (SAIC) to discuss SAIC's role in the project as an expert in managed access. BNL is drafting a more detailed course outline, which will be presented to the IAEA during a December 2005 visit to BNL by the IAEA to discuss the course goals and objectives.
B.098		**Enhanced Observational Skills [USA B 1446 / M. Hunt]**				
			Sonalysts	$286,000.00	$224,537.00	
						The SSTS approved additional funding for this task by phone poll in August for Sonalysts to conduct an initial training course on Enhanced Observational Skills for ICAS 53 during the week of September 19, 2005.
B.099		**Physical Inventory Taking Computer Based Training [USA B 1464 / V. Cisar]**				
			BMI	$175,000.00	$164,055.00	
						A draft structure and content for the computer based training was developed. Initial layout of the presentation was developed. The structure for electronic presentation was initiated.
B.101		**Expert - Senior Instrumentation Specialist - Training in NDA Equipment and Procedures [USA B 1418 / A. Hamilton]**				
			IAEA	$230,000.00	$51,266.00	
						The expert Philip Hypes began his assignment as a senior training officer in the Section for Safeguards Training on July 4, 2005. Mr. Hypes worked on the revision of training materials and procedures. He is preparing to teach Module 6 (NDA) of the Introductory Course on Agency Safeguards, which includes reviewing and updating of relevant materials, the preparation of master notebooks, and exercising procedures to be taught in the laboratory portions of the course. Mr. Hypes provided impromptu training to experienced inspectors who were preparing to go on inspections. He worked on the development of training with various state support programs. Mr. Hypes met with US Senator Pete Domenici. He provided a briefing and equipment familiarization to Soledad Rivillas Fernández of the Spanish Ministry of Industry, Tourism, and Commerce.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
C.102		**Development of Safeguards for Final Disposal of Spent Fuel in Geological Repositories - SAGOR Phase II**				
		[JNT USA C 1204 / M. Diaz-Menendez]				
			ISPO	$5,389.00	$5,389.00	There was no SAGOR activity for this quarter. The IAEA will make a formal request for the next phase of the work. This task will be considered closed when that request is received.
			LANL	$58,600.00	$58,600.00	There was no activity this quarter.
			SNL	$17,947.32	$17,947.32	There was no activity this quarter.
C.105		**Expert - Development of the Safeguards System for Rokkasho Reprocessing Plant (Ehinger)**				
		[USA C 1257 / S. Johnson]				
			CFE	$934,500.00	$778,043.00	The expert Michael Ehinger participated in the training of inspectors to be assigned to the Rokkasho Reprocessing Plant (RRP) in the area of solution monitoring. Mr. Ehinger participated in Working Group Meetings in Japan. He assisted SGTS with upgrades to the Solution Measurement and Monitoring System (SMMS) hardware at RRP. Mr. Ehinger continues to support testing and integration of the Solution Monitoring Software in the Integrated Inspector Information System for processing the SMMS data from the RRP.
C.106		**Expansion of the Physical Model**				
		[USA C 1279 / Z. Liu]				
			BNLCONTR	$28,000.00	$15,706.00	This task is closed.
			INEEL	$11,900.00	$11,379.00	
			ISPO	$11,000.00	$13,423.00	
			LLNL	$12,000.00	$10,930.32	
			ORNL	$140,745.00	$140,745.00	

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
C.110		**Development and Test of an Integrated Safeguards Scheme for Transfers to Dry Storage at CANDU Reactors**				
		[JNT USA C 1388 / J. Doo]				
			LANL	$9,300.00	$9,300.00	There was no activity this quarter.
			State Dept.	$0.00	$0.00	Jon Sanborn (State Department) participated in field trials of an integrated safeguards approach for the CANDU facilities at the Wolsong Nuclear Power Station (Republic of Korea) in April. The purpose of the meeting was to identify integrated safeguards methods to reduce the IAEA inspector effort during spent fuel transfers from the reactor facility to dry cask storage. Dr. Sanborn is preparing a final report for the IAEA. This task will remain open until the IAEA concurs with the final report.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
C.111		Safeguards System for Chernobyl Unit 4 [JNT USA E 1445 / O. Zatsepin]				
			BNL/NCT	$281,000.00	$228,878.00	
						Brian Boyer (BNL) traveled to the Chernobyl Nuclear Power Plant (Ukraine), from August 6 to 12, 2005, to assist in the implementation of the safeguards approach (video and radiation surveillance equipment) and in the assaying of the radioactive waste found near the Unit 4 Shelter, in order to help the IAEA develop solutions for safeguarding any uranium or plutonium from the fuel that may be uncovered during excavation of the site.
			Sonalysts	$246,000.00	$124,275.00	
						Colin Carroll traveled with Brian Boyer to Ukraine in August. See BNL's report.
	C.111.01		LANL	$60,900.00	$41,100.00	
						Instrumentation Assistance to Shelter Project - LANL assisted with the construction of the NaI Multi Channel Analyzer (MCA) for the Chernobyl complex. Two preamplifier boards and three NaI ADC boards have been delivered to the IAEA. Three sets of MCA and 4”x4”x4” NaI(Tl) detectors have been assembled and tested in the environmental chamber. The IAEA has manufactured seven MCAs and is manufacturing ten new preamplifiers boards for the Chernobyl project. LANL worked with the IAEA in resolving some issues with preamplifiers for thermal neutron detectors. A future SP1 was discussed with the IAEA, based on the information presented and a demonstration of in-field calibration of the electronics. LANL worked on the development and implementation of a new board design that is a size and function, pin-to-pin, replacement of the existing Amptec A111 preamplifier boards. These new boards can tolerate high input capacitance, outdoor environment, and have lower power consumption. LANL worked on the development and implementation of a calibration tool and procedure to match a setting to that of another preamplifier for field replacement. The properties of the new preamplifiers will allow the setting of the preamp's threshold without the use of a radioactive source. LANL made presentations on front-end electronics for thermal neutron detectors, NaI(Tl) temperature stabilization, and a low cost neutron detector based on an Li6 ionization chamber with an integrated body/moderator.
	C.111.02		LANL	$50,000.00	$24,300.00	
						MiniADC Installation Support - The SSTS approved funding via phone poll on July 11, 2005, for Mike Browne to integrate the MiniADC into the unattended monitoring system for the Chernobyl Shelter. Mr. Browne will travel to the IAEA for three weeks in July and to the Chernobyl site for one week in August. An additional week will be spent in preparation and for the summary trip report. Mr. Browne’s efforts will allow for the setting up, and testing, of the Chernobyl Unit 4 unattended monitoring system before deployment and final system characterization.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
	C.111.03		IAEA	$23,000.00	$0.00	UMS Electrical Installation Support - ISPO approved funding on August 8, 2005, for electrical work at Chernobyl Unit 4 to support the Unattended Monitoring System (UMS) installation. Chernobyl Nuclear Power Plant (ChNPP) personnel will install mounting brackets, provide power to IAEA equipment, install conduit for IAEA cable, and provide HVAC/power/ lighting to the IAEA equipment room. They were selected by the IAEA to perform the above work because the installation must comply with Ukrainian building/safety codes and with the ChNPP quality assurance program. The IAEA will execute an installation contract for the above work directly with ChNPP.
C.112		**Consultant - Development Support for Integrated Safeguards [USA C 1451 / D. Hurt]**				
			IAEA	$60,000.00	$46,937.00	
	C.112.01		ISPO	$57,000.00	$43,616.00	The consultant James Larrimore continued to assist the IAEA in the development of documentation for integrated safeguards. Dr. Larrimore consulted at the IAEA from August 29 to September 23, 2005. He assisted in the development of procedures for the implementation of short-notice random inspections (SNRIs) at uranium conversion and fuel fabrication plants. Dr. Larrimore worked with the IAEA to draft a document presenting the general principles and requirements for safeguards approaches at LEU and natural uranium fuel fabrication plants employing SNRIs. This document will guide the development of safeguards approaches under traditional and integrated safeguards. Dr. Larrimore reviewed and provided comments on a proposed SNRI approach for a specific LEU fuel fabrication plant. He developed suggestions for phasing in SNRIs at uranium conversion facilities. Dr. Larrimore participated in a technical meeting on the Transition to Integrated Safeguards, on behalf of the Secretariat, which was attended by representatives of twenty-seven countries and two regional safeguards authorities. He prepared a summary of the meeting discussion as input to the Secretariat's report of the meeting.
	C.112.02		BNL/NCT	$16,000.00	$0.00	The SSTS approved funding at its September 1, 2005, meeting for BNL to work with Jim Larrimore on a historical paper on the changes made in containment/surveillance and timeliness adopted for integrated safeguards.
	C.112.02		BNLCONTR	$78,500.00	$0.00	The SSTS approved funding at its September 1, 2005, meeting to extend Jim. Larrimore's contract through 2006. ISPO will extend its contract with Mr. Larrimore for this period.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
C.113		**Development of Techniques to Estimate the Separative Capacity of R&D Isotopes**				
		[USA C 1476 / W. Bush]				
			BNL/NCT	$25,000.00	$15,078.00	Brian Boyer and James Lemley (BNL) are awaiting the distribution of the draft report compiled by LLNL to review and comment.
			LANL	$40,000.00	$21,400.00	John Lyman (LANL) completed the report entitled: "Enrichment Separative Capacity for MLIS (Molecular Laser Isotope Separation)" (LA-UR-05-4960) on June 22, 2005, and submitted it to Mona Dreicer
			LLNL	$55,000.00	$34,779.00	The draft final report was distributed to BNL, LANL, and ORNL for comments. LLNL will finalize the report, or will schedule a workshop to finalize report in the next quarter if needed.
			ORNL	$40,785.00	$9,096.00	Duane Starr and Len Phillips (ORNL) submitted sections on calutrons, centrifuges, and the plasma separation process to LLNL for the team report.
C.114		**Develop a PBMR Operational Model to Identify and Quantify Proliferation Indicators and Possible Diversion Scenarios**				
		[USA C 1547 / Y. Touil]				
			INL	$40,000.00	$0.00	INL focused on pre-requisite code development and a model of the PBMR-400 reactor.
C.115		**Quality Management Specialist**				
		[USA C 1555 / J. Patten]				
			IAEA	$171,042.00	$0.00	Quality Management Specialist - The SSTS approved the nomination of Richard McCullough for this task by phone poll.
C.116		**Determination of Decommissioned Status of Facilities**				
		[USA C 1561 / Y. Touil]				
			BNL/NCT	$130,000.00	$0.00	The SSTS approved this task at its September 1, 2005, meeting. BNL and Sonalysts will study commercial and research reactors in the northeast US. They will prepare case studies which the IAEA can use to determine when safeguards should be applied.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
D.122		**Systems Engineering Process for SGIT [USA D 1158 / G. Cherif]**				
	D.122.01		CGE&Y	$251,000.00	$162,839.00	There has been no activity reported for this quarter.
	D.122.02		BIT	$70,000.00	$29,623.00	There has been no activity reported for this quarter.
	D.122.03		IAEA	$70,000.00	$0.00	Bloodworth Integrated Technology (now a subsidiary of Diversified International Sciences Corporation) traveled to the IAEA to assess the SGIT-ISI business environment. BIT/DISC held a workshop on the Information Technology Infrastructure Library (ITIL) and assisted in developing teams for process development. BIT/DISC worked with team leads to identify areas of improvement. The contractor facilitated a team working session and developed draft Service Catalog, worked on high level processes, such as "Help Desk," "Services Desk," and "Change Management." The contractor reviewed each of the updated procedures produced by Cap Gemini Ernst & Young for the SGIT Quality Assurance group.
D.136		**Expert - Divisional Information Security Policy Officer - Terrence Dunn [USA D 1335 / J. Baute]**				
			CFE	$775,200.00	$615,324.00	The expert Terrence Dunn continued in his role as the SGIT Information Security Policy Officer. Mr. Dunn advised the Safeguards Departmental Information Security Office (SH-SPR) on the continuing development and implementation of improved information security policies. He fielded numerous questions from departmental staff on proper information security procedures. Mr. Dunn examined several reported problems and deficiencies related to information and physical security, on behalf of SH-SPR, and he proposed and implemented solutions. Mr. Dunn served as departmental representative to the Agency-wide Information Security Policy Steering Group (ISPSG) and he identified matters requiring policy attention. Mr. Dunn provided policy guidance for information technology (IT) security systems and practices. He identified several physical security vulnerabilities and recommended ways to address them. Mr. Dunn participated in the Department's planning for business continuity and disaster recovery. He provided advice to several departments on the secure handling of Safeguards-related information.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
D.137		**Consultants - Assistance on Information Collection and Information Systems [USA D 1126 / V. Braguine]**				
	D.137.01		BNL	$16,000.00	$0.00	
	D.137.01		ISPO	$73,840.00	$48,023.00	Allen Locke - There was no activity this quarter.
	D.137.03		LANL	$103,000.00	$82,200.00	Jeff Bedell - There was no activity this quarter.
	D.137.04		LANL	$235,000.00	$168,308.00	Arvid Lundy - Dr. Lundy consulted with the IAEA's Division of Safeguards Information Technology (SGIT) for two weeks in June. He focused on the methodology and use of scientific literature as part of the IAEA's open-source collection and country evaluations. Tentative plans to consult from January 9 to 20, 2006, were made with the IAEA.
	D.137.06		PNNL	$180,000.00	$161,682.91	Ned Wogman - Dr. Wogman consulted with SGIT for two weeks from August 15 to 26, 2005. He developed four reports on information analysis for country evaluations.
	D.137.07		SNL	$146,756.90	$113,141.28	Joyce van Berkel - Ms. van Berkel consulted for six weeks for SGIT/IIS from August 22 to September 30. After consultation with SGCP, SGOB, SGOA, SGOC, SGIT, and members of the Deputy Director General's office, Ms. van Berkel developed a proposal for a streamlined approach to state evaluations for small quantity protocol (SQP) states. SGIT and SGCP have proposed a test period in which the new approach will be used for a few countries. The format and process will be revised based on the test results.
	D.137.08		LLNL	$161,000.00	$79,470.85	George Anzelon - There was no activity this quarter. Dr. Anzelon is scheduled to consult in December 2005.
	D.137.09		LLNL	$117,862.00	$83,209.33	William Domke - There was no activity this quarter. Dr. Domke is scheduled to consult in November 2005.
	D.137.11		LLNL	$72,982.27	$72,317.93	Roger Miller - There was no activity this quarter. Mr. Miller is scheduled to consult in October 2005.
	D.137.12		LANL	$57,000.00	$30,355.00	Richard Wallace - Dr. Wallace consulted with the IAEA from July 16 to 30, 2005. He conducted open source searches and analysis. Dr. Wallace answered various technical questions for SGIT.

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	D.137.13		LLNL	$29,500.00	$29,969.00	Doug Vogt - There was no activity this quarter.
	D.137.14		LLNL	$29,500.00	$16,374.00	Jim Hassberger - There was no activity this quarter.
	D.137.15		LLNL	$0.00	$0.00	Lisa Owens Davis - There was no activity this quarter.
	D.137.16		LLNL	$0.00	$0.00	Cyndee Annese - Ms. Annese consulted with SGIT for two weeks in September 2005.
	D.137.17		LANL	$20,000.00	$0.00	Caroline Mason - There was no activity this quarter. Ms. Mason is scheduled to consult at the IAEA in November-December.
	D.137.18		ISPO	$0.00	$0.00	Jacob Blackford - There was no activity this quarter. Mr. Blackford is scheduled to consult in December.
	D.137.19		ORNL	$30,000.00	$0.00	Leonard Phillips - There was no activity this quarter.
	D.137.20		ORNL	$30,000.00	$18,406.00	James David Snider - Dr. Snider spent two weeks in September as an Open Source Consultant for the Division of Safeguards Information Technology. He worked primarily under the direction of Dr. Victor Braguine of SGIT, performing a variety of technical tasks and submitting technical analyses.
	D.137.21		PNNL	$22,000.00	$12,872.00	Winston Little - Mr. Little consulted for the IAEA's Division of Safeguards Information Technology for one week in August.
	D.137.22		BNL	$35,000.00	$0.00	Maryam Tatavosian - The SSTS approved funding in September for former intern Maryam Tatavosian to perform consulting support for the IAEA, while attending graduate school at Mercyhurst College. There has been no activity reported for this quarter.
D.138		**Open Source Information Collection [USA D 1381 / J. Lepingwell]**				
	D.138.03		IAEA	$39,000.00	$25,479.00	K2 Enterprise System - Consultant Eduardo Fujii completed his portion of the task. The IAEA finalized the customization of the system. This subtask is closed.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
D.141		**Internship Program [USA D 1396 / A. Hamilton]**				
	D.141.04		BNL	$803,634.00	$713,528.00	2004-2005 Internships - Kendra Klump (SGIT/TNS), Maryam Tatavosian (SGIT/IIS), Andrew Janowczyk (SGIT/ISH), and Christopher Duncan (SG/SIAU) completed their internships in August. This subtask is
	D.141.04		BNL/OEP	$85,000.00	$258,814.00	Kendra Klump, Maryam Tatavosian, Andrew Janowczyk, and Christopher Duncan completed their internships in August 2005. Catherine Osiecki (BNL/OEP) made arrangements to purchase their tickets home and close out their appointments. Jessica Satterfield presented her technical paper on the IAEA Illicit Trafficking Database at the 2005 INMM annual meeting in July. Ms. Osiecki made travel arrangements for her to travel to Phoenix, Arizona. Ms. Satterfield and Jonathan Essner completed their internships in September 2005. Ms. Osiecki made arrangements to purchase their tickets home and close out their appointments. Shipping reimbursements for interns have been made as they returned home. This subtask is closed.
	D.141.05		IAEA	$52,000.00	$55,911.00	Christopher Dalton continued work on the CIOSP (Common Inspection Onsite Software Package) 2. He worked on the QA Audit for the JNFL project.

TaskID	Title Subtask [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
	D.141.07	BNL/OEP	$900,000.00	$127,999.00	Catherine Osiecki (BNL/OEP) made travel arrangements and appointments for four interns who began their assignments in early July. James Garner began his internship in SGOA/JNFL on July 16, 2005. Mark Laughter (SGIT/IIS), and William Wanderer (SGIT/IIS) began their internships on July 4, 2005. Maria Ivkovic requested an extension until September 2005. She declined her internship in late August. Orientation for the 2005-2006 interns was held September 5 at IAEA Headquarters and the ten new interns attended. The new interns are Sarmadi Almecci (SGTS/TIE), Jeffrey Easley (SGIT/ISH), Mike Fayer (SGIT/ISH), Lauren Ginsberg (SGTS/TIE), Holli Hoerchelman (SGOC/OCP), David Kamran (SGIT/IIS), Patrick Lynch (SGIT/SIAU), Victoria Pratt (SGTS/TNS), Lawrence Taylor (SGIT/ISH), and Santhosh Xavier (SGCP/PSA). Ms. Osiecki made their travel arrangements and appointments. She attended the IAEA orientation with Kenneth White of BNL/OEP. BNL sponsored a luncheon after the orientation for former and new interns, their supervisors, and IAEA staff, to meet in an informal setting. Mr. White and Ms. Osiecki attended meetings with various people from the Department of Safeguards, Personnel, and the US Support Program staff to discuss best practices. BNL/OEP conducted two recruiting trips in September. Mel Morris and Catherine Osiecki met with students at UC Berkeley, UC Sonoma, San Francisco State University, San Jose State University, the Monterey Institute of International Studies, and California Polytechnic University. Donna Occhiogrosso (ISPO) and Ms. Osiecki exhibited at the Society for the Advancement of Chicanos and Native Americans in Science National Conference (SACNAS), which had 2700 attendees, about half of whom were students. Additional recruiting is planned for the fall months. The selection process for 2006 internships will begin in December.
	D.141.08	BNL	$22,000.00	$4,445.00	Kim Van Dyke began her four-month assignment on September 12, working with LANL to develop a documentation scheme for Unattended and Remote Monitoring (UNARM) systems. She has completed all courses required to work at LANL, Division N-1. Ms. Van Dyke began work on her development plan for documenting unattended monitoring systems. She submitted this to LANL and the IAEA for feedback.
	D.141.08	LANL	$45,800.00	$0.00	Kim Van Dyke began her four-month assignment on September 12, working with LANL to develop a documentation scheme for Unattended and Remote Monitoring (UNARM) systems. LANL prepared paperwork for her visit and secured office space and computer resources for her stay.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
D.146		**Quality Control Verification Software for Member States Nuclear Material Accounting Reports to the Agency**				
		[USA D 1429 / X. Wang]				
			SAIC	$135,000.00	$133,197.78	
						The Maintenance Phase of the Quality Control and Verification Software (QCVS) project is ongoing. AWST updated and delivered the Design and User Documents to reflect the software's as built condition. AWST and IAEA met on September 12 to review member states' feedback and to prioritize change requests. The IAEA selected five change requests (CRs) to be implemented. AWST implemented and tested all five CRs and delivered all files modified on September 29, 2005. AWST responded to two technical questions from SGIT, related to Excel input files and CSV input format conversion. AWST reviewed minor corrections to the SDD made by SGIT.
D.148		**Expert - Special Technology Coordinator**				
		[USA D 1443 / M. Nicholas]				
			CFE	$438,200.00	$292,434.00	
						The expert John Hilliard started working on the External Experts Workshop, scheduled for the fourth quarter of 2005. Mr. Hilliard was assigned officially as a Support Program Project Manager for Project SGIT-006 entitled: "Enhanced Information Analysis Architecture." He continued work as a Steering Committee member overseeing a technology team, an analyst team, and an outside expert team for the improvement of information analysis tools. A statement of work was signed by the Director of SGIT and the Director of the Joint Research Center in Ispra, Italy. Migration of data from Search 97 to the K2 Enterprise System has been completed. Mr. Hilliard finalized procurement requests for new information analysis software tools. He assisted the Section Head in writing job descriptions for several new technology support positions.
D.149		**Specialist Training for IAEA's Imagery Analysts**				
		[USA B 1442 / F. Claude]				
	D.149.01		IAEA	$8,501.00	$8,501.00	
						The IAEA has deferred additional training in satellite imagery analysis, until a decision is reached as to how to proceed with the satellite imagery analysis laboratory upgrade. This subtask is on stand by.

TaskID	Title Subtask [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
D.150	**Expert - Systems Analyst** **[USA D 1460 / J. Smith]**	CFE	$428,100.00	$290,183.00	The expert Scott Miller evaluated the SAGSI web portal software for reliability. Mr. Miller discovered it to be outdated and unstable. It was decided to seek alternative software solutions. A feasibility study determined that data could be moved from the Agency's current system to LiveLink, the Agency's standard document management system and collaboration tool. Mr. Miller developed software to move the data to LiveLink. He worked with the SAGSI coordinator to make sure staff were trained on LiveLink. Mr. Miller worked with the MTIT SAGSI administrator to get the current SAGSI data imported into the external LiveLink system. He worked on securing funding for LiveLink licenses for the external SAGSI members. The new SAGSI portal went live on August 15. Mr. Miller worked on an analysis of the Complementary Access system. He evaluated user requirements to validate requests and determine priorities. It was decided that further analyses of system usage and improvements were needed. Mr. Miller identified all the roles in a Complementary Access and interviewed staff members from each Operations division. He worked extensively with the Division of Concepts and Planning to determine how the standard processes and artifacts in development would fit into this new IT system. An overall Project Vision document was developed. The vision statement is circulating within the Department of Safeguards. Mr. Miller met with the IPTC steering committee.
D.151	**IAEA Safeguards Information System Re-engineering Project** **[USA D 1461 / L. Costantini]**	TBD	$0.00	$0.00	This task provides a mechanism for POTAS-funded support to the ISIS Re-engineering Project. Non-POTAS support is tracked under Task SP.62. There are no activities funded under this task at present.
D.152	**Software, Hardware and Database Provision for Satellite Imagery Analysis Support** **[USA D 1477 / F. Claude]**	IAEA	$100,000.00	$0.00	The IAEA received a revised proposal for the upgrade of the Satellite Imagery Analysis Laboratory from Space Imaging in August. Space Imaging proposes a collaboration with Intergraph and Hewlett Packard to provide the desired capabilities. The IAEA will seek USSP concurrence with the proposal for utilization of funding provided under Tasks D.152 and SP.66.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
D.153		**Junior Professional Officer for the JNFL Project [USA X 1513 / S. Johnson]**	IAEA	$102,000.00	$38,607.00	Gregory Gerrein developed web applications for ad hoc queries for the Rokkasho Operations Database. Mr. Gerrein developed a Data Collection and Evaluation Diagnostic web application. He developed an iFeeder application. Mr. Gerrein developed a Multicaster application. He is involved in the management of SURS contract, which includes the Surveillance Review application that Aquila is developing. Mr. Gerrein does daily maintenance and diagnostics on the Rokkasho System. He has become the designated person for small scripting applications that need to be developed the same day. Mr. Gerrein is involved in the ongoing task of designing the OPD XML Schema document, which will be used by the operator in Rokkasho and by the I3S. He is a member of I3S Change Control Board.
D.154		**Expert - IAEA Safeguards Information System Re-engineering Project [USA D 1520 / L. Costantini]**	IAEA	$230,000.00	$7,825.00	The expert Richard Watts will begin his assignment with the ISIS Re-engineering Project in October 2005.
D.155		**Imagery Analyst [USA D 1519 / F. Claude]**	IAEA	$50,000.00	$0.00	Recruitment for this position is on hold.
D.156		**Software Development Support: LIMS for the SAL [USA D 1523 / S. Balsley]**	IAEA	$55,000.00	$55,000.00	This task involves a contract with Construx Software to conduct Phase 1 of the Safeguards Analytical Laboratory Information Management System (SALIMS) upgrade. Phase 1 involved a top to bottom review of the proposed SALIMS upgrade. Construx concluded that the SALIMS upgrade project is feasible with low risk, as long as their high priority recommendations are followed. Phase 1 has been completed. Construx has issued the final report to the IAEA. The IAEA is implementing Phase 2 (SALIMS preparation phase) of this task.
D.157		**Windows/Office 2003 Migration for Safeguards [USA D 1548 / R. Gronvius]**	IAEA	$87,750.00	$0.00	The SSTS reviewed the IAEA's proposal evaluation for the provision of software migration services and approved funding for UNISYS on May 18, 2005. The IAEA is responsible for placing a contract with UNISYS. Procurement is proceeding.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
D.158		**Expert - Design, Development and Implementation of Data Collection and Evaluation Software for RRP [USA D 1556 / R. Gaetano]**				
			IAEA	$100,000.00	$0.00	The SSTS approved the CFE position entitled: "Design, Development and Implementation of Data Collection and Evaluation Software for RRP (P5)" for Joseph Damico of SNL on July 28, 2005. Mr. Damico will continue to provide expertise to the IAEA in leading a team of contractors, consultants, and staff in the remaining development, testing, installation, start-up, and operations, comprising the RRP Integrated Inspector Information System (I3S). Currently, Mr. Damico is a CFE at the IAEA under Task A.253, with his term expiring in December 2005. He was recommended by ISPO as the sole candidate for this position, due to his previous expertise in developing preliminary specifications of this particular system. This assignment will cover a two year period, ending in July 2007.
D.159		**Design and Definition for an Enhanced Information Analysis Architecture [USA D 1564 / Murray]**				
			Azura Media	$5,200.00	$0.00	This task was approved at the October 6, 2005, SSTS meeting.
			LLNL	$16,000.00	$0.00	
			MITRE	$8,600.00	$0.00	
			SNL	$14,000.00	$0.00	
E.119		**Upgrading of GARS Review Software and Software Factory Support [USA E 1249 / B Wishard]**				
	E.119.01		Aquila	$110,000.00	$48,000.00	This task is an IAEA direct service contract with Aquila to provide quick response to software upgrades for Aquila designed General Advanced Review Software (GARS) and related products. The IAEA is to notify ISPO when requests for work are sent to Aquila. Aquila is expending the final funding under the existing contract. Funding was approved by the SSTS for a follow-on contract.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
E.122		**URM Systems Standardization and Support [USA E 1274 / K. Ferstl]**				
	E.122.02		LANL	$70,000.00	$66,839.00	Radiation Review for VXI Integrated Fuel Monitor (VIFM) - Radiation Review for Baseline 2 was tested to verify that it properly reads VIFM files written in both the old and new versions. The documentation was updated to reflect these changes and is ready for delivery with Baseline 2. LANL has indicated that this task is complete. ISPO will obtain IAEA concurrence prior to project closeout.
	E.122.03		LANL	$140,000.00	$36,998.00	Performance Review Software - Discussions concerning the scope of this task were held with the Max Aparo (IAEA) during a visit to LANL in July 2005. LANL will begin the process of broadening the scope of this task to include changing the format of the *.PFM and *.CEV files produced by MIC that will be analyzed by Radiation Review. LANL will write a proposal outlining the suggested work and schedule, and will send it to ISPO and the IAEA for review.
	E.122.04		LANL	$314,000.00	$310,356.00	Multi-Instrument Collect Generic Module (MICGM) - Peggy Moore completed the MICGM code in June 2005. Desiree Coriz and Ms. Moore started MICGM testing in early July 2005. A few minor problems were detected, repaired, and retested successfully. David Pelowitz, Ms. Moore, and Ms. Coriz upgraded documentation including the test plan, the user's manual, and the interface specification. Ms. Moore archived the task products. Heather Nordquist is running unattended long term endurance tests. MICGM (renamed MIC 2.0.0.0) will be included in the UNARM Baseline 2 delivery scheduled for early December 2005. LANL will inform ISPO upon the completion of testing. ISPO will obtain IAEA concurrence prior to project closeout.
	E.122.06		LANL	$489,000.00	$487,500.00	Auxiliary Communication Device (ACD) - LANL has indicated that this task is complete. ISPO will obtain IAEA concurrence prior to project closeout.
	E.122.08		LANL	$157,000.00	$63,654.00	Unattended Monitoring System (UMS) Software Modifications - Testing of Radiation Review for Baseline 2 was completed. Documentation was updated to reflect these changes and is ready for delivery with Baseline 2.
	E.122.09		LANL	$77,700.00	$69,900.00	Completion and Delivery of Baseline 1 - LANL has indicated that this task is complete. ISPO will obtain IAEA concurrence prior to project closeout.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
	E.122.10		LANL	$100,000.00	$103,100.00	Study to Convert IAEA Neutron Coincidence Counting (INCC) and Isotopic Review (ISO) to Component Object Modules (COMs) - The objectives of this task were met in the previous reporting period. Minimal activity occurred this quarter, involving responses to technical issues arising from the documents produced under this funding. LANL will inform ISPO when this task is complete.
	E.122.11		LANL	$121,000.00	$61,074.00	Generic Software Components for the Chernobyl Conditioning Facility - Work continues on the Data Filtering Analysis program (DaFi). DaFi will be used in field installations to help determine Miniature Gamma Ray and Neutron Detector (MiniGRAND) parameters by reanalyzing data with various parameter settings. The design and coding are complete. Testing and documentation have begun.
	E.122.12		LANL	$241,077.00	$40,193.00	Decomposition of Analysis Modules - "Integrated Review Software Radiation Review Interface Specification" (LA-UR-05-4276) has been sent to the IAEA. The document containing the interfaces for CoSrImport, CoAdcImport, CoSrMeasurementsAnalysis, CoDirectionAnalysis, and CoIntegrityAnalysis was updated to be consistent with the latest design decisions and with the needs of the Rokkasho Reprocessing Plant (RRP) project. The SR Import COM has been written and is being integrated into Radiation Review.
	E.122.13		LANL	$288,000.00	$70,780.00	Control Board and Baseline Release Management and Support - This task was created to establish a software control board to better manage the Unattended and Remote Monitoring (UNARM) software product from N-1. During the last quarter, LANL transitioned from a paper to an electronic system for tracking software change requests. Using this system, LANL can better track the status of each software change request through the complete cycle. Individuals submitting software change requests are notified automatically by email as the change request proceeds through its cycle to closure. UNARM baseline 2 was scheduled originally for delivery in June 2005, but has been delayed until December 9, 2005. This delay was agreed to with the IAEA to allow shared resources to complete high priority tasks for the Rokkasho Reprocessing Plant (RRP) project.
	E.122.14		LANL	$85,500.00	($500.00)	INCC and ISO Com Conversion - This subtask is for the conversion of the INCC and ISO codes to component object modules (COMs). The COMs are planned for use at RRP and other IAEA monitoring systems. Due to an IAEA change in priority on RRP projects, the SSTS approved shifting all of the funding from E.122.14 to A.247.19 in July 2005. E.122.14 funding was deferred until FY06. IAEA is in the process of reviewing LANL's proposal for FY06 funding of this subtask.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
	E.122.15		LANL	$55,000.00	$0.00	Unattended Monitoring System (UMS) Software Support - This subtask provides the IAEA with continuous critical technical support regarding UMS software issues which need to be evaluated and corrected on an accelerated schedule. The SSTS approved funding for three months for this subtask at its September 1, 2005, meeting. LANL will provide ISPO with an activity report prior to November, 25, 2005. ISPO will present this report to the SSTS for continued funding of this subtask.
E.125		**Remote Monitoring and Unattended Digital Surveillance Systems [USA E 1330 / M. Aparo]**				
	E.125.13		LANL	$69,000.00	$20,708.00	Immersive Digital Video Review (iDVR) processes images are in near real time mode. iDVR synchronization of images is functioning. iDVR supports the reconfiguration of cameras and the setting of dead-band parameters per camera, per facility. iDVR supports generic wide-angle lens images in immersive mode. iDVR is fully integrated into the UNARM IRS communication protocol.
E.126		**Expert - Safeguards Equipment Systems Information Security (Tolk) [USA E 1339 / M. Aparo]**				
			CFE	$715,700.00	$570,643.00	The expert Keith Tolk conducted a study of the implementation of the Mailbox system using email transfer of the declarations. A new method has been selected for implementation. A working system is expected shortly. Mr. Tolk prepared another draft of the Policy on Joint Use Equipment, which incorporated comments from IAEA management. Approval of this policy is expected in the next quarter. A test of the IJPD took place at the Rokkasho Reprocessing Plant in July. The system failed due to an equipment malfunction that could not be repaired at the site. A separate malfunction resulted in the rescheduling of the test, which was planned for September. Mr. Tolk prepared for the test, which is scheduled for October.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
E.127		**Expert - Remote Monitored Surveillance Systems Development and Implementation Coordination (Regula)**				
		[USA E 1350 / M. Aparo]				
			CFE	$584,700.00	$441,191.00	The expert James Regula installed remote monitoring (RM) connections for a DMOS, VIFM, and SDIS, at the CANDU reactor at Cernavoda, Romania. Mr. Regula installed RM for a DMOS unit and the T1 Radio Frequency Seal system at the K-Area Material Storage facility (KAMS) at Savannah River, South Carolina. His testing of new transfer software for both VIFM and DMOS was completed and is deployed at Cernavoda and at KAMS. Mr. Regula taught an SDIS class to the current ICAS group. He designed a laptop retrieval system for a DMOS unit in Ulba, Kazakhstan. Mr. Regula wrote a cost benefit analysis for a storage facility in Poland. He provided support for more than one hundred remote sites around the world.
E.130		**Integrated Safeguard System for SF Conditioning Facility (Part 2/3 of Chernobyl Transfer and Conditioning Campaign)**				
		[USA E 1361 / G. Ingrao]				
	E.130.01		LANL	$1,305,000.00	$1,302,988.00	ESP 9 Software Release was prepared and sent to the IAEA. Testing of Radiation Review for Baseline 2 was completed to assure compatibility with all the needs of the Chernobyl project. Documentation was updated to reflect these changes and is ready for delivery with Baseline 2. Design work was performed on the Data Filtering Analysis (DaFi) program. ESP 9 was prepared and delivered to the IAEA to address the issue of reading and properly displaying binary data, which is to be used by the IAEA only if needed.
	E.130.01		Sonalysts	$331,227.00	$324,464.00	
E.131		**Testing/Evaluation Programme for Unattended Monitoring and Surveillance System's Computer Software Operating System**				
		[USA E 1370 / G. Rengarajan]				
	E.131.04		LANL	$86,900.00	$84,300.00	Multi-Instrument Collect (MIC)/Windows XP Certification - This subtask was to test the current version of MIC on the Microsoft XP operating system. IAEA plans on using this operating system on future installations of remote and unattended monitoring systems. The task included testing and certification of MIC at LANL and email/phone support to IAEA for concurrent testing of MIC in Vienna. ISPO has received concurrence from the IAEA that this subtask may be closed.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
E.133		**2002 Factory Support for DIS [USA E 1108 / B. Wishard]**				
	E.133.01		Aquila	$513,301.09	$484,841.00	Kent Brown and Anthony Gonzales continued to provide factory support for the IAEA's existing digital imaging surveillance (DIS) systems. Mr. Brown participated in the kickoff meeting for the SURS review software project for the JNFL reprocessing facility and will serve as the liaison between Aquila and the IAEA for this project. He continued testing GARS hardware platforms for field use. Mr. Brown began work on a conceptual design for a modular UPS system for current and future surveillance systems. Planning continues for the processing of GARS surveillance data on the SG LAN. Mr. Brown is arranging logistics for an upcoming SDIS installation in Switzerland. Mr. Gonzales continued testing and upgrading DIS equipment for field use. He continued to provide liaison support with the factory for DCM 14 upgrades. Mr. Gonzales is continuing the implementation of the replacement of DCM 14 backup batteries program by performing testing, conducting training, managing logistics, and updating documentation. He is preparing systems and logistics for upcoming DSOS installations in EURATOM countries.
	E.133.02		Aquila	$398,125.91	$161,567.91	
	E.133.03		IAEA	$134,000.00	$14,532.00	Vio Popescu is assisting SGOC3 with the Bi-Digital Imaging System (BDIS) implementation and redesign. Mr. Popescu is involved in various activities necessary to complete the task of replacing GEMINI systems with DSOS, including concept design, planning, coordination, and site surveys. He is performing HAWK-SG Based Digital Imaging Surveillance System (HDIS) testing and authorization. Mr. Popescu is developing a camera extended battery backup solution, including infra red and night vision, for the DCM 14 based systems.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
E.134		**Mobile Safeguard System for SF Transportation from Chernobyl NPP to Conditioning Facility**				
		[USA E 1375 / G. Ingrao]				
			IAEA	$55,000.00	$55,000.00	
	E.134.01		SNL	$805,355.28	$757,249.00	The first upgraded MMCT system (MMCT 2) was installed at Chernobyl during the week of August 29 to September 2, 2005, by a team consisting of Giovanni Ingrao, Karl Ferstl, Aleh Zatsepin, and Nina Wilson from the IAEA, and Richard Lucero and Jack Bartberger from SNL. The system that was removed from the railcar is being shipped to SNL. The next step is to upgrade that system.
	E.134.02		LANL	$257,000.00	$259,295.00	LANL completed the "Report to the IAEA on MMCT Testing" (LA-UR-05-4939). The Baseline 1 Rev 2 software was installed on the MMCT system at Aquila. Documentation was provided to the IAEA containing all the parameters used in the setup and special setup notes to assist them at Chernobyl. A report describing the LANL tests on the MMCT problems was delivered to the IAEA.
	E.134.03		Aquila	$121,250.00	$64,088.00	MMCT 2 was shipped to the IAEA on June 30, 2005. It is being installed in Chernobyl. Aquila is awaiting return of MMCT 1 for
E.135		**Safeguards Systems for Chernobyl SF Long Term Dry Storage (Part 3/3 of Chernobyl Transfer and Conditioning Campaign)**				
		[USA E 1376 / G. Ingrao]				
	E.135.01		LANL	$3,923.00	$3,923.00	This task is on stand by.
E.137		**Next Generation Camera Module and Server-Based Surveillance Systems**				
		[USA JNT E 1437 / B. Wishard]				
	E.137.01		Sonalysts	$109,666.00	$86,240.00	Colin Carroll of Sonalysts initiated work on a configuration control process to manage the design changes for the NGSS project. Mr. Carroll prepared for the upcoming project status meeting scheduled for November 2005.
	E.137.02		IAEA	$160,000.00	$0.00	Equipment testing at the Prater Reactor in Vienna is ongoing. Aquila, DNC, and the IAEA have met repeatedly to discuss NGSS project progress, schedule, and funding. The first review meeting will be held from November 21 to 22, 2005.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
E.139		**Expert - Digital Image Surveillance, Unattended Monitoring System Integration and Remote Monitoring Systems Engineer** **[USA E 1463 / M. Aparo]**	CFE	$354,900.00	$233,779.00	The expert Lee ReFalo traveled to Japan to review the technical details for an upcoming safeguards activity at Monju. The trip included possible safeguards activities for fuel transfer and measurement of existing reactor core inventory. Mr. ReFalo visited TRP for data integration discussions and maintenance of an older surveillance system. He installed the latest version of IRS in TRO for PFPF data review. Mr. ReFalo conducted the security measures necessary for IAEA use of UMS equipment on two of the IHVS systems in RRP. He traveled to Sellafield for installation of a new Euratom based NDA and radiation detection data collection equipment. New data collection (RADAR) and review (CRISP) software were installed. Mr. ReFalo visited LANL for a meeting on the JMOX GUAM system, where the discussion was focused on the test system to be installed in PFPF early next year. He repaired a failed SDIS in Lithuania INPP. Mr. ReFalo is working on the Lithuania reactor spent fuel transfer monitor to be installed early next year. He is preparing for further trips to RRP.
E.140		**Enhancement of Cobra Fibre Optic Seal System** **[USA E 1475 / G. Weeks]**	IAEA	$346,000.00	$141,400.00	This task will improve the usability, and reduce the vulnerability, of the COBRA seal system (seal and verifier) used by the IAEA. Development of the new improved Cobra seal by Aquila continues. The electronics of the hand-held verifier have been assembled and testing has been initiated. The redesign of the new mold has been completed. Investigation of an appropriate seal identification method is ongoing.
E.142		**Vulnerability Assessment of EOSS and IRES Electronic Seals** **[USA E 1509 / M. Goldfarb]**	SNL	$177,000.00	$117,488.00	SNL has conducted a vulnerability assessment of the software and firmware of IAEA's next generation electronic seal, the Electro-Optical Sealing System (EOSS). The Final Report has been sent to the IAEA. The IAEA has initiated a new SP-1 for a small follow-on task for a very specific vulnerability assessment of the foil membrane in the seal. ISPO is receiving proposals on the follow-on task. SNL has indicated that task E.142 has been completed. ISPO needs to obtain IAEA concurrence prior to task closeout.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
E.143		**Junior Professional Officer - Engineers Support to Unattended Monitoring** **[/]**				
			IAEA	$90,000.00	$39,101.00	Nina Wilson began her duties as a Junior Professional Officer (JPO) on July 12, 2005. Ms. Wilson is assigned to the Division of Safeguards Technical Support, within its Section for Installed Systems, as part of a team that is responsible for designing, testing, installing, and maintaining safeguards equipment in the field. She became familiar with, and ensured the smooth running of, the Mobile Monitoring System for Container Transport (MMCT). At the installation of the MMCT during the week of August 29, Ms. Wilson had the opportunity to observe a routine safeguards inspection at the rest of the Chernobyl site. She configured two computers and associated intelligent networks for use in Canada, one computer for use in South Africa, and assisted in the testing for the new, combined, radiation and video system for Chernobyl's reactor 4 (nicknamed the Shelter project).
E.144		**Ultrasonically Interrogated Metal Seal** **[USA E 1532 / M. Goldfarb]**				
			INL	$15,000.00	$3,381.00	INL is conducting a feasibility study for verifying the IAEA's metal seal in situ, using ultrasonic techniques. Materials for proof of concept testing were received from the IAEA. Ultrasonic testing using the INL technology was initiated. Preliminary favorable data was transmitted to the IAEA for evaluation and discussion. IAEA project staff are planning to visit the INL ultrasonic lab in October 2005.
			PNNL	$100,000.00	$21,720.98	PNNL is conducting a feasibility study which includes an acoustic method for performing an in-situ verification of the existing IAEA "scratch and solder" interior metal seal signature and metal seal wire. Preliminary studies have been conducted that include basic work to examine acoustic waves that will propagate along a length of wire of either wire type and acoustic imaging of "scratch and solder" signatures to evaluate transducer selection. Acoustic transducers were designed to clip onto the wire and acoustic responses were acquired from wires of selected lengths and loops of wire formed by either a crimp or square knot. Related work included electromagnetic examination of the wire to detect a nick in a wire strand or a discontinuity of one or more wire strands.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
E.145		**VOID-3 Vulnerability Assessment [USA E 1533 / H. Undem]**				
			LANL	$296,000.00	$95,098.00	This task involves a vulnerability assessment of the VOID-3 seal design, and the VOID-3 seal prototypes (Task 1). Assessments of the real-time counterfeit resistant features (Task 2), forensic key features (Task 3), the development of operational protocol, and an inspector training program (Task 4) are included. LANL began an initial analysis of the seal, after receiving a half dozen seal samples from the IAEA. A larger shipment of seals from the IAEA which is needed for a full vulnerability assessment is expected to arrive shortly.
E.146		**Feasibility Study for Change Detection Software Applied to Metal Seal Signatures [USA E 1534 / H. Undem]**				
			INL	$52,000.00	$8,884.00	INL is conducting a feasibility study to evaluate the use of Change Detection Software to accelerate the verification process of the IAEA's metal seal in the seals laboratory. Foreign travel approval for the INL project team was received. A project kickoff meeting is scheduled to be held at the IAEA Seals Laboratory in Vienna during the first week of October 2005.
E.147		**MMS Software Update [USA E 1535 / G. Weeks]**				
			SNL	$25,206.00	$17,971.00	This task involves the first phase of the Material Management System (MMS) upgrade at the K-Area Material Storage (KAMS) Facility at Savannah River. Phase 1 funded a meeting between SNL/SRNL/IAEA in Vienna in April 2005 to determine the requirements of the MMS upgrade. SNL has submitted a proposal to ISPO for Phase 2 funding of the actual MMS upgrade. The proposal is being reviewed by ISPO and the IAEA. ISPO needs to obtain concurrence from the IAEA that Phase 1 of this task has been completed.
			SRNL	$8,000.00	$0.00	Please see Task E.147, Contractor: SNL.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
E.148		**Expert - Senior Sealing Systems Engineer [/]**				
			CFE	$0.00	$0.00	The IAEA submitted a request to the USSP to nominate a cost-free expert (Senior Sealing Systems Engineer) who will work in the IAEA Seals Unit. The SSTS agreed to nominate Halvor Undem. Mr. Undem is currently a cost-free expert under task A.259, Development of New Seals. This new assignment will involve containment verification and sealing systems development, vulnerability countermeasures training development, vulnerability assessment capability development, and coordinating the Biannual Containment Verification and Sealing Systems Technical Meeting. This assignment is from February 1, 2006 to January 31, 2008.
F.032		**Consultant - Services Safeguards Issues (R. Hooper) [USA C 1134 / J. Cooley]**				
			IAEA	$609,336.87	$523,448.00	The consultant Richard Hooper began assisting the Secretariat to prepare for the Board of Governor's new Committee on Safeguards and Verification. Mr. Hooper prepared two drafts of a paper intended to assist the Committee in establishing its terms of reference. He delivered a seminar on strengthened safeguards during the week of September 5 to 9, 2005. There were thirty participants. Mr. Hooper continued to revise and update the presentation material.
F.036		**Fixed Term Assistant - Procurement Services [USA F 1472 / A. Hamilton]**				
			IAEA	$356,000.00	$0.00	The expert Philip Beauparlant issued a services order to support the IRP Project in developing and assisting with the evaluation of the Physical Hardware/Software associated with the IRP. Mr. Beauparlant received a statement of work from the JNFL Project for additional effort on the I3S system. The request for proposal (RFP) was released. Proposals were received, submitted to the PAC, and approved. The contract amendment was issued. Mr. Beauparlant prepared an RFP for Analysis, Design, and Development of the IMGT and IALS Subsystems. The RFP was released and bids are expected. Mr. Beauparlant processed contracts for miscellaneous Safeguards equipment and for quality management workshops. He established a new Basic Supply Agreement (BSA) for the Server Digital Information System (SDIS). Mr. Beauparlant is in negotiations for the Identity Management and Web Single Sign On project for MTIT. Other proposals received and under technical evaluation include SPRICS, IT Training, and the End to End Monitoring, Performance, and Traffic Management of Critical Applications of the IAEA Infrastructure. Mr. Beauparlant released an RFP for an Alarm Monitoring Intrusion Security System for SAL.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
S.026		**The Design and Development of an Orientation Course for U.S. CFEs and IAEA Staff**				
		[USA X 943 /]				
			ISPO	$395,487.00	$395,487.00	Work on updating the Guidebook has been suspended due to illness of the contractor. ISPO is devising a new approach.
S.036		**Integrated Safeguards Consultations**				
		[USA X 1315 / L. Gourgon]				
			BNL/NCT	$799,245.00	$798,899.00	The final report has been completed and is circulating for comment.
			ISPO	$32,349.00	$32,349.00	
			LLNL	$12,300.00	$12,300.00	
			ORNL	$33,875.00	$33,875.00	
			PNNL	$25,000.00	$24,505.00	
			SNL	$9,894.51	$9,894.51	
S.037		**ISPO Recruitment Program**				
		[USA X 942 /]				
			ISPO	$276,422.00	$276,521.00	ISPO prepared material and attended two tradeshows and a career fair. The two tradeshows were the INMM Annual Meeting in Phoenix, Arizona, which focused on International Safeguards, and the Maritime Expo held in New York City, which focused on Homeland Security. ISPO met with potential candidates, discussed new vacancies, and distributed recruitment material. The career fair was the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) held in Denver, Colorado, which was targeted specifically for the recruitment of Interns for the USSP Internship Program at the IAEA.
S.049		**IAEA Travel for US Support Program Tasks**				
		[USA X 1306 / A. Hamilton]				
			IAEA	$1,723,024.00	$1,367,221.00	This task provides funding to the IAEA for task related travel. The SSTS responds to quarterly travel projections prepared by the IAEA's Support Program Administration.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
S.053		**Non-Proliferation and Disarmament (NDF) Funding for SG Equipment**				
		[USA X 1342 / B. Bartsiotas]				
			ISPO	$3,106,000.00	$3,078,387.00	This task was established to track the expenditure of funding provided through the Nonproliferation and Disarmament Fund (NDF) in 2000. The NDF approved funding in 2000 for the procurement of geospatial laboratory and digital image surveillance equipment. ISPO, the IAEA, and the State Department's NDF office are working together to expend the remaining funding and to close out this account.
S.057		**USVC Funding in 2001 for SG Equipment**				
		[USA X 1393 / B. Bartsiotas]				
			IAEA	$10,154,770.44	$8,893,108.02	This task was established to track the IAEA's expenditure of funding provided in the 2001 US Voluntary Contribution for the procurement of Safeguards equipment.
S.060		**Contracts Labor Charge**				
		[/]				
			ISPO	$211,707.00	$148,560.00	This task provides funding for the labor charges that are incurred by the BNL Procurement and Property Management Division, while executing contracts and purchase orders for USSP tasks.
S.061		**2002 U.S. Voluntary Contribution for Safeguards Equipment**				
		[USA X 1490 / B. Bartsiotas]				
			IAEA	$6,634,575.73	$5,422,598.90	This task was established to track the expenditure of the 2002 US Voluntary Contribution for Safeguards Equipment.
S.062		**ISIS Reengineering**				
		[USA D 1491 / M. Strohmayer]				
			IAEA	$9,069,516.67	$358,741.00	This task was established to track US Voluntary Contributions to the ISIS Reengineering Project. The IAEA selected Cap Gemini Ernst & Young (CGE&Y), based on an extensive bid evaluation. The contract was signed by the IAEA and CGE&Y on June 7, 2005, in Vienna.
	S.062.01		IAEA	$612,943.33	$412,943.33	NPT Accounting Software - This subtask is complete.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
S.065		**NDF 2002**				
			IAEA	$4,155,000.00	$2,132,531.00	This task was established to track the expenditure of funding provided through the Nonproliferation and Disarmament Fund (NDF) in 2002. The NDF approved funding for high priority NDA and surveillance equipment. ISPO, the IAEA, and the State Department's NDF office are working together to expend the remainder of the funding and to close out the account.
S.066		**2003 USVC for Safeguards Equipment** [/]				
			IAEA	$7,700,000.00	$2,928,308.68	This task was established to track the IAEA's expenditure of funding provided in the 2003 US Voluntary Contribution for the procurement of Safeguards equipment.
S.068		**Information and Communication Technology Conference** [/]				
			ISPO	$20,000.00	$0.00	There was no activity scheduled for this quarter at LANL, LLNL, ORNL, PNNL, SNL, or in the private sector.
			LANL	$10,000.00	$11,000.00	
			LLNL	$10,000.00	$0.00	
			ORNL	$9,925.00	$9,925.00	
			PNNL	$10,000.00	$9,847.00	
			SNL	$10,000.00	$5,821.00	
			Sonalysts	$85,000.00	$71,034.00	Sonalysts completed the workshop report and issued it as ISPO-521. This task is complete.
S.069		**2004 USVC for Safeguards Equipment** [/]				
			IAEA	$4,359,600.00	$1,178,229.44	This task was established to track the IAEA's expenditure of funding provided in the 2004 US Voluntary Contribution for the procurement of Safeguards equipment.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
S.071		**NDA Training Course Relocation**				
		[/]				
			IAEA	$5,000.00	$0.00	This funding was provided for IAEA travel in connection with the relocation study. There was no activity this quarter.
			INL	$45,000.00	$14,254.00	INL is performing a documented safety analysis (DSA) review of all former ANL-West facilities, due to the transition of ANL-West into the INL. The DSA was scheduled to be completed by the end of August 2005 but was delayed until October 2005, due to changes in material handling and safety requirements resulting from the consolidation. This review will help establish the work scope for relocating the IAEA NDA course to INL.
			ISPO	$36,000.00	($1,060.00)	ISPO continues to monitor the progress of INL's efforts to relocate the NDA Training Course.
			LANL	$24,000.00	$23,500.00	There has been no activity reported for this quarter.
			SRNL	$4,000.00	$0.00	There has been no activity reported for this quarter.
S.072		**Technical Meeting on Novel Technologies (including discussion of OIOS MSSP Management Audit), Washington, February 24-25, 2005**				
		[/]				
			IAEA	$0.00	$0.00	This task is on stand by, awaiting proposals from the IAEA for new activity related to novel technologies. There are several related meetings planned for later in 2005, such as the Noble Gas meeting under Task A.262.

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
S.073		**2005 USVC for Safeguards Equipment**				
		[/]				
			IAEA	$4,352,485.00	$0.00	This task was established to track the IAEA's expenditure of funding provided in the 2005 US Voluntary Contribution (USVC) for the procurement of Safeguards equipment. The IAEA's request for extrabudgetary funding for safeguards equipment was received on March 24, 2005, and reviewed by the SSTS at its May 18, 2005, meeting. The SSTS approved the IAEA's request for equipment funding with specific modifications and conditions. The SSTS approved the use of remaining USVC funding from previous years (Tasks SP.57, SP.61, SP.66, and SP.69) for this year's equipment request, with the proviso that the IAEA use funding from previous years before using funding from the 2005 USVC. This will ensure that any remaining unobligated funding would belong to the 2005 USVC.
S.074		**Enrichment Technical Meeting**				
		[/]				
			BNL/NCT	$6,513.00	$5,828.00	The scope of work assigned to BNL was completed in the previous quarter. This task is complete.
			LANL	$18,000.00	$17,900.00	There has been no activity reported for this quarter.
			LLNL	$16,000.00	$9,085.00	George Anzelon drafted the final report of Working Group 3 on detection of undeclared enrichment activities and verification of R&D enrichment facilities.
			ORNL	$15,568.00	$15,568.00	There has been no activity reported for this quarter.
			PNNL	$19,000.00	$18,851.00	The scope of work assigned to PNNL was completed in the previous quarter. This task is complete.

TaskID	Title Subtask [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
S.075	Safeguards Tools for the Future [/]				
		BNL/NCT	$11,000.00	$0.00	
		INL	$9,500.00	$0.00	
		ISPO	$17,000.00	$0.00	Topical workshop: Safeguards Tools for the Future - ISPO continued efforts to plan and coordinate the workshop, including inviting participants, making logistical arrangements, and recruiting presenters. The workshop is planned for October 10 to 14 at the Sonalysts facility in Newport, Rhode Island.
		LANL	$20,000.00	$14,188.00	
		LLNL	$9,500.00	$0.00	
		ORNL	$10,000.00	$0.00	
		PNNL	$12,000.00	$10,617.48	
		SNL	$17,000.00	$0.00	Susan Caskey and Jason Coombs were selected to participate in the October workshop on Safeguards Tools for the Future.
		Sonalysts	$86,000.00	$43,504.00	

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
S.076		**Technical Meeting on HRGS for Analysis of Environmental Samples**				
		[/]				
			LANL	$18,000.00	$14,100.00	
			LLNL	$41,200.00	$42,318.00	
						As a result of the 2004 Consultants' Group Meeting (CGM) on Bulk Analysis, the IAEA and LLNL organized a CGM on High Resolution Gamma Spectrometry (HRGS) of Environmental Samples, which was held from May 25 to 27, 2005, in Vienna. Delegates from each of the active US DOE Network of Analytical Laboratories (NWAL) (ORNL, LANL, LLNL, PNNL) described their procedures and gave their perspective on the state of the program. Representatives of AFTAC, Japan, Germany, and Finland attended and made presentations, in some cases. A list of eighteen recommendations was created. The recommendations focus on improved accuracy, sensitivity, and quality control. This task is complete.
			ORNL	$33,742.24	$33,742.00	
						The scope of work assigned to ORNL was completed in the previous quarter. This task is complete.
			PNNL	$19,000.00	$18,903.00	
						The scope of work assigned to PNNL was completed in the previous quarter. This task is complete.
W.001		**Work For Others**				
		[/]				
			LANL	$17,740.00	$22,858.00	
						This task is used to reclaim funding from completed tasks at LANL, which will be redirected to new activities at LANL.
	W.001.01		LANL	$0.00	($62,927.00)	
W.003		**Work for Others**				
		[/]				
			ORNL	$390.00	$390.00	
						This task is used to reclaim Work for Others fees and funding from completed tasks at ORNL, which will be redirected to new activities at ORNL.